United States
Environmental Protection
Agency

Outres
Techn

Office of Water (4204)

EPA 832-R-98-001 June 1998

Outreach And Technical Assistance Programs

1997 Accomplishments
Small Underserved Communities Team

[COVER BOARDTO BE PROVIDED BY EPA, ART BY EQUALS 3]

Contents

Underserved Communities: the Problem	1
Role of the Small Underserved Communities Team	1
Why This Report?	
Small Community Needs	2
——————————————————————————————————————	
Technical Assistance	3
Field Assistance	3
Rural Community Assistance Program	3
Demonstration Projects	
National Small Flows Clearinghouse Onsite Demonstration Program	
Alaska Sanitation Facilities Operations and Management Pilot Project	
Tribal Wastewater Peer Match Program	
Wastewater Treatment Grants	6
Clean Water Act Indian Set-Aside Grant Program	6
Alaska Native Village Sanitation Grant Program	6
U.SMexico Tribal Border Grant Program	7
Colonias Wastewater Assistance Program	7
Training	9
Operator Training Program	9
National Environmental Training Center for Small Communities	
Outreach	1
Small Community Outreach and Education (SCORE)	
The National Small Flows Clearinghouse	
Team Publications	3
Team Contacts	4

Underserved Communities: the Problem

EPA defines "small underserved communities" as those that have fewer than 10,000 people and that have inadequate wastewater collection or treatment systems. Among them are communities and tribes throughout the United States as well as native villages in Alaska and economically disadvantaged areas along the United States-Mexico border. More than a million homes in America still lack basic indoor plumbing, and many small communities have central wastewater systems that need extensive repair. These conditions pose serious health and environmental problems for residents.

Role of the Small Underserved Communities Team.

The Environmental Protection Agency's (EPA's) Office of Wastewater Management (OWM) administers programs that can help small, rural, and underserved communities get adequate wastewater treatment and disposal systems. These programs are managed in the Municipal Support Division (MSD) by the Small Underserved Communities Team (the team). Chartered by MSD management in December 1997, the team was

Team Vision:

To help ensure the attainment of adequate wastewater treatment services by small underserved communities so that their water quality and public health needs are met.

created to help socioeconomically deprived communities attain wastewater treatment services that meet water quality and public health standards. The team consists of program analysts and environmental protection specialists who manage program resources and activities.

Team Mission:

- To administer programs through which small underserved communities can access information or financial and technical assistance to achieve adequate, cost-effective wastewater systems.
- To help focus and increase assistance efforts for small underserved communities.

While some of the programs administered by the team provide direct financial assistance to build wastewater facilities, most take the form of information development and technical expertise initiatives that can help communities solve their own problems. Team activities stimulate outreach that delivers appropriate information to decisionmakers in needy communities. Outreach is conducted by partners who receive EPA funding for a variety of activities and products, such as newsletters, hotlines, wastewater system information, over-the-shoulder technical assistance for wastewater operators, technology and management demonstration projects, and delivery of training materials to environmental trainers, educators, and others who work with small communities.



Why this report? This report highlights accomplishments of the assistance programs the team manages. It describes team programs and outreach initiatives, resources provided, and major 1997 accomplishments that helped small communities comply with Clean Water Act (CWA) requirements and improve their quality of life. Team contacts in EPA's Municipal Assistance Branch can provide specific information about the programs.

Small Community Needs. The wastewater treatment needs of small communities are significant. According to the 1996 Needs Survey Report to Congress, total documented needs for communities with fewer than 10,000 people are \$13.8 billion—11 percent of the Nation's total documented needs. Also, small communities have greater basic infrastructure needs than larger communities: secondary treatment comprises 28 percent of the total documented needs for small communities compared to 20 percent for larger ones, and new collector sewers account for only 6 percent of the need for larger communities but 29 percent for small ones. These statistics reflect, in part, continuing efforts to extend wastewater collection and treatment to small communities. As part of this effort, the EPA 1997 Congressional Appropriations bill provided approximately \$82.5 million for small community wastewater programs administered by the team. The chart below shows how those funds were distributed.

Small Underserved Communities Team Program Funding

Program	FY 1997
Rural Community Assistance Program	\$521,000
National Small Flows Clearinghouse Onsite Demonstration Program	\$1 million
Alaska Operations & Maintenance Pilot Project	\$500,000
Tribal Wastewater Peer Match Program	\$0 (team support)
Clean Water Act Indian Set-Aside Grant Program	\$6.7 million
Alaska Native Village Sanitation Grant Program	\$15 million
U.SMexico Tribal Border Grant Program	\$4.5 million
U.S. Colonias Wastewater Assistance Program	\$50 million (Texas)
Operator Training Program (104(g)(1))	\$1.79 million
National Environmental Training Center for Small Communities	\$1 million
Small Community Outreach and Education (SCORE)	\$0 (team support)
National Small Flows Clearinghouse	\$1.52 million
TOTAL	\$82.53 million



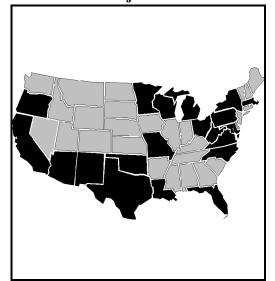
To help communities build and operate self-sufficient wastewater systems that comply with CWA requirements, EPA and Congress over the years have made funds available to create several information, training, and technical assistance programs. Often communities and tribes can avoid costly construction projects by improving their management skills, seeking adequate financing, selecting appropriate technology, and improving the operation and maintenance of their facilities. In FY 1997, many small communities were able to do just that through EPA assistance programs managed by OWM's Small Underserved Communities Team.

Field Assistance

Rural Community Assistance Program (RCAP).

RCAP's Small Community Wastewater Project operates under a cooperative agreement funded by EPA's congressional add-on grant. The program is carried out

States with RCAP Wastewater Projects in 1997



through a national network of nonprofit organizations that focus on helping small, rural, and underserved communities meet CWA requirements. Most of the communities are populated by low-income minorities who

The following communities have success stories to share about RCAP-supported wastewater projects:

Latty, OH
Elmwood Heights, WV
Mille Lacs, MN
Riverton, MN
Fairfield Community, NC
Holman Drive, NC
Northern Northampton, VA
Chemehuevi, CA
Mora, NM
Amenia, NY
Colrain, MA
Pollock, LA
Blue Water Cove, TX

To read about them, visit the RCAP or OWM websites at: http://www.rcap.org or http://www.epa.gov/OWM

have problems addressing their wastewater treatment issues. In FY 1997, EPA targeted \$307,000 for RCAP technical assistance to communities in the areas of operations and maintenance, financing, management, and facilities planning and development. Additionally, RCAP contributed \$15,923 of in-kind services to the project. FY 1997 accomplishments included the following:



RCAP provided onsite technical assistance for wastewater projects in 57 small rural communities in 20 states. Project types included 35 facilities development plans, 5 management and finance seminars, 9 systems operations and maintenance, 5 community program planning, and 3 supplemental funding assistance.



- RCAP networked with more than 19 state pollution control agencies, EPA Small Community Outreach and Education (SCORE) coordinators, U.S. Department of Agriculture (USDA) Rural Development agencies, U.S. Indian Health Services (IHS)—Health and Human Services—and numerous other federal, regional, and state agencies; tribal councils; and other organizations to address small, rural community wastewater treatment needs.
- RCAP leveraged \$1,463,000 to assist small communities, most with fewer than 3,000 residents. A population of 37,771 people directly benefited from RCAP's assistance.

Demonstration Projects

National Small Flows Clearinghouse
Onsite Demonstration Program. This
multiple-phased project demonstrates the
effectiveness of alternative onsite
wastewater technologies (where
wastewater is treated on the property

where generated or by means of cluster systems serving several homes). The National Onsite Demonstration Project is funded under a cooperative agreement between the EPA and the National Small Flows Clearinghouse. The program calls for construction of onsite systems at various locations in more than 10 states. It also includes monitoring of system performance, documentation of costs, active public education programs, and development of management approaches to assure proper operation and maintenance. The program aims to develop model programs for managing and maintaining onsite systems and for training local officials, installers, and engineers. Congressional add-on funding has provided \$4.75 million for the program through FY 1997. Program highlights for FY 1997 include:

Gloucester, Massachusetts. In November 1994, North Gloucester, an old fishing port in Massachusetts, became the first of six communities nationwide to complete construction of onsite wastewater systems as part of the National Onsite **Demonstration Project. The** project increased the number of viable options available to the city's homeowners and may thereby lessen the need for sewers. But the real cost savings for Gloucester's onsite systems will be realized over the long haul by cutting operational fees in half. To develop a base of knowledge within Gloucester, separate contractors were hired to install each of three systems. System construction came in ahead of schedule and under budget.



- A meeting of phase I communities featured presentations on the results of each project. Monitoring has been completed, and results for phase I will be published by September 1998.
- Six proposals were selected for funding under phase II of the demonstration project.

Alaska Sanitation Facilities Operations and Maintenance (O&M) Pilot Project. As in most communities in the United States, rural Alaska communities manage, operate, and maintain their sanitation facilities. But a variety of technical, geographic, climatic, and economic factors make O&M a greater challenge in rural Alaska than elsewhere. That is why in 1995 OWM and EPA Region 10 entered into a cooperative agreement with the Alaska Native Health Board (ANHB) to conduct a series of pilot projects that explore ways to help rural communities achieve adequate O&M of their drinking water and wastewater treatment facilities. The goals of the pilot program were to protect government and community investments in sanitation

Wastewater treatment plant in Kiana, AK



facilities, to build community capacity for sanitation facilities management and O&M, to demonstrate the feasibility of reducing life-cycle costs through alternative technologies, and to protect public health through effective O&M of water and sanitation facilities. In FY 1997:

- More than 30 rural Alaskan communities and villages entered into partnerships with the ANHB to identify and implement improved O&M practices in their communities.
- OWM provided \$2.5 million in total funding for the pilot projects.

Tribal Wastewater Peer Match Program. The National Tribal Environmental Council (NTEC), a nonprofit tribal membership organization, helps Indian tribes protect and preserve



tribal lands. NTEC was created to address the needs expressed by many tribes for training and technical assistance to develop and manage their environmental programs. OWM entered into a 2-year cooperative agreement totaling \$125,000 with NTEC to establish a Tribal Wastewater Peer Match Exchange Program to help tribes address their water pollution



problems. This innovative pilot approach to intertribal technical assistance and training establishes "ad hoc" networks or "peer relationships" with experts in environmental systems and wastewater management. As of FY 1997:

Sixteen peer matches helped tribes better learn how to operate and maintain wastewater treatment systems, monitor septic systems to protect groundwater, design and build new systems, establish water quality standards, and identify funding sources for treatment systems.

Wastewater Treatment Grants ...

Clean Water Act Indian Set-Aside (ISA) Grant Program. This grant program helps pay for planning, designing, and constructing wastewater treatment systems for Indian tribes and Alaska Native Villages (ANVs). All federally recognized tribes, ANVs, and tribes on former reservations in Oklahoma are eligible to apply for an ISA grant. The EPA administers this grant program in cooperation with IHS. This partnership optimizes the technical resources available through both agencies to address tribal sanitation needs. Each year, 0.5 percent of the CWA Title VI (State Revolving Fund) is set aside for construction of tribal wastewater systems. Through FY 1997, the EPA ISA Program has disbursed more than \$72 million for 176 projects.

- Twenty-five tribal wastewater systems were funded from the \$6.7 million set-aside.
- Outreach materials—a brochure and Q&A document—were developed to increase tribal awareness of the ISA program.

Alaska Native Village Sanitation Grant

Program. Congress and EPA created this grant program in 1995 to help ANVs and rural Alaska communities fund construction of water and wastewater sanitation facilities. Of the 268 communities in Alaska, 192 are considered ANVs. More than half of these have unacceptable drinking water and wastewater sanitation systems to service their residents (about 75,000 people). In some villages, the occurrence of fecal contamination and

"Honey Bucket" haul station in Kipnuk, AK



communicable disease is quite high. Most of these villages have only basic sanitation systems, such as pit privies or "honey bucket" haul systems as the sole means of sewage collection and disposal. As of FY 1997, \$45 million has been made available for more than 100 sanitation systems in these communities and villages. The State of Alaska has provided matching funds equivalent to EPA's investment. In FY 1997:

OWM provided \$15 million to build a total 41 water and wastewater sanitation systems for rural Alaska communities and ANVs.

U.S.-Mexico Tribal Border Grant Program. Funding for Indian tribes within 100 kilometers (62 miles) of the United States-Mexico border was appropriated by Congress in 1996 to assist tribes with the planning, design, and/or construction of high-priority drinking water and wastewater treatment projects. Approximately \$17 million was made available to address the pressing need for infrastructure financing on Indian reservations and on a number of Indian lands along the border. Tribes were asked to submit project proposals addressing specific criteria to EPA Region 10 for review and approval. In FY 1997:

Ten (10) projects were selected for funding.
 Approximately \$4.5 million in grant awards were made to 4 of the 10 selected tribes.

U.S. Colonias Wastewater Assistance Program.

Colonias—impoverished communities along the United States-Mexico border—came about when developers sold small tracts on marginal land in unincorporated subdivisions to poor immigrants who could not afford better. Unacceptable environmental and sanitation conditions, including a lack of safe drinking water and wastewater treatment services, have caused a high rate of hepatitis A and gastrointestinal diseases in these communities. Approximately 1,200 colonias, with a total population exceeding 300,000, have been identified in Texas and New Mexico. A few also exist in Arizona and possibly in California. In 1993, EPA began awarding grants to Texas and New Mexico to construct wastewater facilities and alleviate these unsanitary

Colonias Programs Provide Clean Start

For decades, communities have existed along the United States-Mexico border lacking the most basic services that U.S. residents generally take for granted—safe drinking water, sanitary wastewater treatment, paved roads, trash pickup, and, in some cases, even electricity. One such community, Lull colonia, located near Edinburg, Texas, had not had access to sewage treatment since the 1920s. Most of the 1,300 residents who live there had water hookup in their homes for cooking and bathing, but not necessarily for drinking—and often there was no indoor plumbing. Through the use of grants and loans from EPA, the United States Department of Agriculture, the State of Texas, and the City of Edinburg, Lull residents—having endured decades of neglect—now have modern water and sanitation facilities.



Colonia on the Texas-Mexico border, with raw sewage flowing



conditions. Congress has appropriated \$270 million through FY 1997. Federal grants, matched by state resources, help finance construction of wastewater facilities in colonias. Community general technical assistance, preparation of project proposals, overall management of infrastructure projects, technical review of project designs, and project construction management are provided by the Texas Water Development Board and the New Mexico Environment Department, which are responsible for day-to-day program management. By the end of FY 1997:

- ► Eighty-nine colonia projects were under way in Texas, with 50 in the planning phase and 39 under design or construction. About 287,000 colonia residents benefit from these projects.
- ► In New Mexico, 13 colonia projects were under way, including 4 under design or construction.
- ► EPA assisted the Texas Attorney General's efforts to promote legislation to close the loopholes that allowed colonias to develop in the first place. The state legislature has adopted such laws and the Attorney General has taken legal action against developers who sold colonia lots without basic services.
- EPA staff conducted an assessment of the colonia assistance program for Texas. Meetings were held with staff from the Texas Attorney General's Office and the Texas Water Development Board. Colonias in the Brownsville and El Paso areas were visited.
- ► EPA staff also assessed the colonia assistance program for New Mexico. Staff met with State Environment Department officials and visited colonia wastewater projects, including the alternative wastewater technology demonstration site near Las Cruces.



Training: 1997 Program Accomplishments

The Small Underserved Communities Team manages outreach programs that offer various educational and hands-on training opportunities for people living in small communities or for owners or operators of small wastewater systems. Programs focus on a variety of operator training, curricula development, outreach workshops and conferences, and peer matching activities. FY 1997 program accomplishments are highlighted below.

Operator Training Program. By authority of Section 104(g)(1) of the CWA, EPA initiated the Operator Training program to provide hands-on technical assistance and operator training to address noncompliance problems at small publicly owned treatment works (POTWs). The program's goal is to optimize POTW performance by identifying design, administrative, maintenance, and operational performance limiting factors and determining feasible solutions. To date, more than 6,000 POTWs have received onsite assistance, with 80 percent reaching compliance or showing improved performance. Following are FY 1997 program accomplishments:

- ► EPA regional offices allocated more than \$1.79 million to 48 states to continue onsite technical assistance for operators across the country.
- ► EPA developed a survey to determine the effectiveness of the Section 104(g)(1) onsite assistance program. Survey questions were screened by operators at local wastewater treatment facilities to ensure their appropriateness. A report, to be distributed in 1998, will summarize results of the national survey.
- Approximately 150 technical assistance providers attended the annual National Operator Training Conference.

National Environmental Training Center for Small Communities (NETCSC). Established in 1991, NETCSC is located at West Virginia University in Morgantown, West Virginia. It serves



as a national training and education center for environmental trainers nationwide to improve the quality of wastewater, drinking water, and solid waste services in communities with fewer than 10,000 people. NETCSC develops new training curricula, redesigns existing curricula, and—in partnership with other organizations—presents training courses around the country to help small communities meet federal and state environmental requirements. NETCSC supports a toll-free



Training: 1997 Program Accomplishments

technical information resource center that maintains several electronic databases and a materials repository for environmental trainers. The center publishes a quarterly newsletter and a resource catalog and maintains a website. The website is located at http://www.estd.wvu.edu/netc/netcsc_homepage.html.

Highlights of FY 1997 accomplishments for NETCSC include:

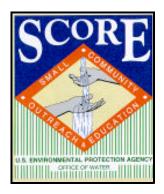
- Development and Delivery. NETCSC produced an omnibus training course that consists of four stand-alone courses in troubleshooting wastewater systems for trainers who work with small communities. NETCSC conducted 13 training sessions with 26 co-sponsors, reaching nearly 400 participants in 6 EPA regions. It also began an effort to incorporate NETCSC curricula into state certification programs and served as a regional downlink site for three satellite video conferences.
- Training Assistance. NETCSC training offerings earned a 93.5-percent customer satisfaction rating from course participants. NETCSC provided training information or products to nearly 400 environmental professionals and expanded information in its databases on training activities, materials, and organizations. Entries in the trainers database increased by nearly 50 percent. NETCSC displayed materials at 14 national and 18 state conferences and negotiated three formal cooperative agreements with two national organizations and one state organization to share and distribute training information.
- Promotions and Outreach. NETCSC's website logged 865 hits in its first year with a growing monthly volume exceeding 175 hits. Four updates to the website were completed, including eight links. NETCSC distributed 17 news releases to 1,006 sources, and NETCSC-related stories appeared in 22 different national, regional, and state publications.
- Publications. NETCSC published and distributed four issues of E-train—a free quarterly training newsletter—to 6,300 subscribers. It also published and distributed a training resource catalog and an evaluation resource package for environmental trainers.



Outreach: 1997 Program Accomplishments

Several EPA outreach initiatives undertaken by team-managed programs brought new information, knowledge, and skills to small underserved communities. Databases, telephone hotlines, publications, and presentations assisted a variety of small community audiences with their wastewater needs. The following describes several outreach highlights for FY 1997.

Small Community Outreach and Education (SCORE). This information network is part of EPA's information and technical assistance outreach efforts for small communities. Created in 1988 to help small communities build and maintain self-sufficient wastewater facilities that meet CWA requirements, SCORE works with states, federal agencies, public interest and advocacy groups, and educational institutions to deliver its messages to audiences: namely, that self-sufficient wastewater facilities result from appropriate technology, sound financial management and operations, pollution prevention, and



public education. States play the key role in outreach delivery to their communities. EPA in past years provided small grants, most under \$10,000, to states to establish small community outreach activities. The SCORE network at present includes EPA Headquarters and regional SCORE coordinators and state and advocacy organizations mentioned above. SCORE serves as a vehicle to spread the messages of the various programs managed by the Small Underserved Communities Team.

► In FY 1997, SCORE networked with other small community outreach programs in Headquarters, the regions, and advocacy organizations. A teleconference held with regional SCORE coordinators, the Small Underserved Communities Team, and a representative from the HQ Office of Regional Operations and State and Local Relations highlighted small community activities and products. These included team programs, the HQ Office of Regional Operations and State and Local Governments, the Small Town Task Force, and the Local Government Advisory Committee. EPA distributed an updated SCORE coordinators list and other small community publications and materials to SCORE partners.



The National Small Flows Clearinghouse. The National Small Flows Clearinghouse (NSFC) serves as the national collection and distribution center for information on small community wastewater systems and innovative/alternative technologies. NSFC helps small communities find



Outreach: 1997 Program Accomplishments

affordable, onsite wastewater treatment services through various means. These include a toll-free technical assistance hotline, an Internet home page with online discussion groups, computer databases, two newsletters, a journal, and technical publications and videos. NSFC helps America's small communities save thousands of dollars in consulting and construction costs while maintaining their quality of life. NSFC is the only national resource of its kind dealing with small community wastewater infrastructure. It has become a model for other agencies seeking to establish technical assistance programs for small communities.

In FY 1997, NSFC distributed 88,473 products, achieving a 90-percent customer satisfaction rate with its level of service. Highlights of the various service areas are listed below:

- Website: Usage increased from 265 hits in the 1st quarter to 3,000 in the 4th quarter.
- Computer Databases: NSFC maintains four databases that contain (1) articles from professional journals, (2) listings of manufacturers and consultants,
 (3) innovative and alternative facilities, and
 (4) regulations. In FY 1997, these databases continued to expand to include information geared to community-sized wastewater facilities. Plans were made to make more of the information available online.
- Periodicals: Small Flows, a quarterly newsletter geared to a technical audience, had a circulation of 43,000 in FY 1997; Pipeline, for small community governments, had a circulation of 20,000; and the Small Flows Journal, a refereed technical journal, had a circulation of 6,000.
- ► Toll-Free Hotline: Calls to the hotline totaled 15,000-18,000, at about 1,300-1,500 per month.

Sometimes, It Only Takes a Phone Call It all started with a phone call from Rockwall, Texas. A homeowner's association in that small community east of Dallas needed help. Their septic systems were failing and they knew that it was just a matter of time before they would draw the attention of regulatory agencies and face fines. They were considering forming a public improvement district and extending sewers from a nearby treatment plant. The \$11,000-per-household price tag for that option was well out of reach for many in the community. The association called NSFC and asked several questions. Using materials supplied by NSFC, along with references for several nearby consultants and state officials who could help them, the group decided on a small-diameter sewer system discharging into the treatment plant. At a cost of about \$2,400 per household, the system is saving the community about \$8,600 per connection. The group has formed a nonprofit corporation, is accepting memberships in the association as a management unit, and will soon select an engineer to design its system. One phone call put a small community in touch with more than 35 trained professionals who could help them.



Team Publications: 1997 Team Products

Here is a list of the informational material published in 1997 by members of the Small Underserved Communities Team.

- ◆ Fact Sheet: Rural Community Assistance Program (RCAP) Help for Small Community Wastewater Projects, EPA 832-F-97-003, October 1997.
- ♦ Federal Funding Sources for Small Community Wastewater Systems, EPA 832-F-97-004, November 1997.
- ♦ *Small Currents* Newsletter, A Periodic Roundup of Team Activities for Our Small Community Wastewater Assistance Partners, Issue 1, January 1998.
- ♦ The Environmental Protection Agency's Clean Water Act Indian Set-Aside Grant Program (brochure), EPA 832-F-97-006, November 1997.
- ♦ Answers to Frequently Asked Questions about the EPA's Clean Water Indian Set-Aside Grant Program, EPA-832-K-97-002, January 1998.
- ♦ Publications describing EPA technical assistance for wastewater programs in small underserved communities highlighted by the National Environmental Training Center, the Small Flows Clearinghouse, and the Drinking Water Clearinghouse.
- ♦ Grantees: Key publications and activities.

Copies of these publications may be obtained by contacting the National Center for Environmental Publications and Information (NCEPI) at 513-489-1890 or 800-490-9198, or by accessing the world wide web at http://www.epa.gov/ncepihom. Include the document control number with your request.



Team Contacts

The Small Underserved Communities Team is made up of staff from the Municipal Support Division of EPA's Office of Wastewater Management. Current team members or advisors and their programs and telephone numbers are as follows:

<u>Charter Manager</u>
Gary Hudiburgh, Chief, Municipal Assistance Branch
Alaska O&M Pilot Project, Tribal Wastewater Peer Match Program,
CWA Indian Set-Aside Grant Program, Alaska Native Village
Sanitation Grant Program, U.SMexico Tribal Border
Grant Program (Sylvia Bell)
Rural Community Assistance Program (Maria Campbell)
National Environmental Training Center for Small Communities,
SCORE (Betty Ford)
U.S. Colonias Wastewater Assistance Program, National Small Flows Clearinghouse,
NSFC Onsite Demonstration Program (Steve Hogye)
State Operator Training Program (Gary Hudiburgh)
<u>Advisors</u>
Decentralized Wastewater Technologies (Joyce Hudson)
Small Hardship Grant Program (Stephanie vonFeck)
Technology Transfer (Charles Vanderlyn)

